



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
TALLASSEE
Machine Id
814046
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0081921	GFL0085977	GFL0080683
Sample Date		Client Info		20 Jun 2024	06 Jun 2024	21 May 2024
Machine Age	hrs	Client Info		1298	1182	1046
Oil Age	hrs	Client Info		1298	1182	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	11	5	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	2	<1	6
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	1
Aluminum	ppm	ASTM D5185m	>20	6	2	2
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	39	15	▲ 307
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

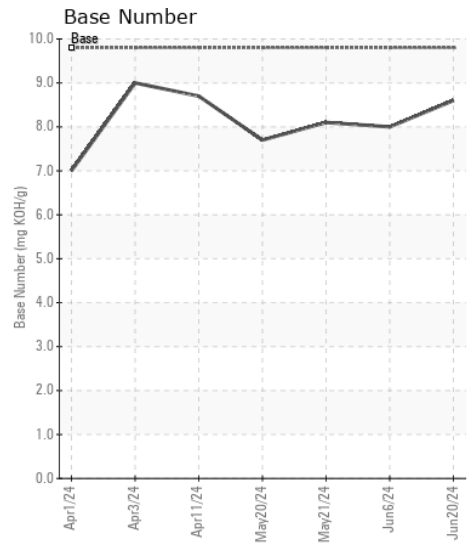
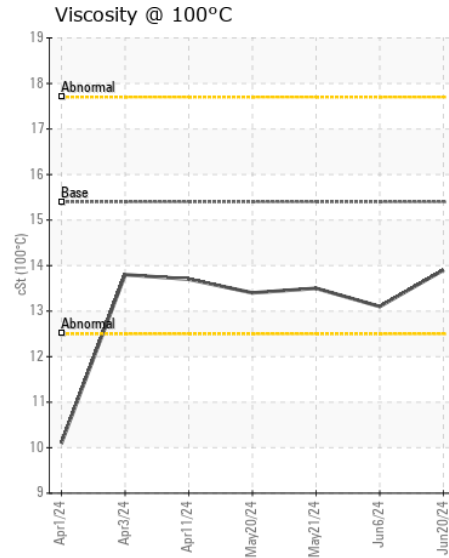
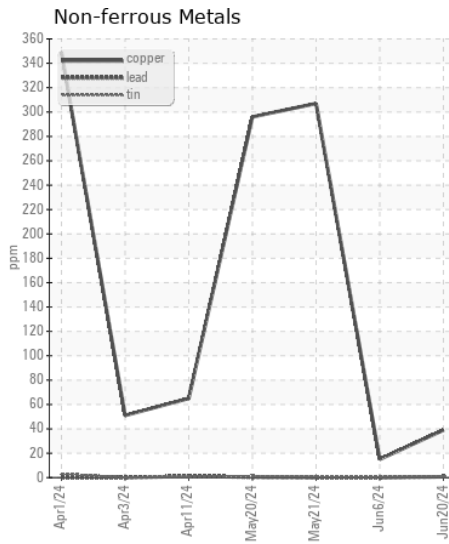
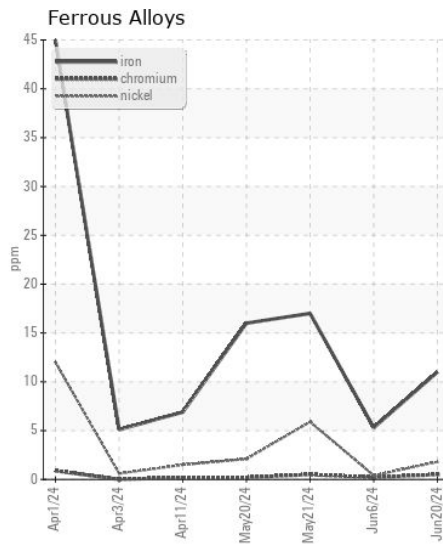
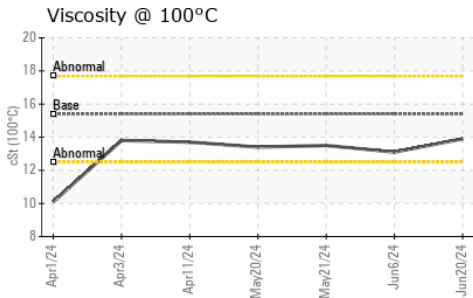
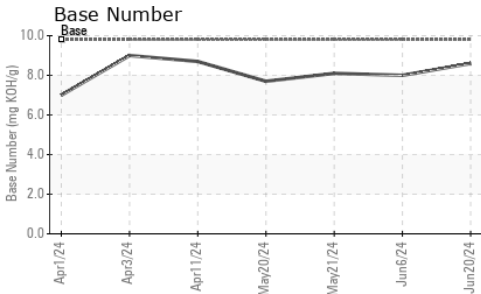
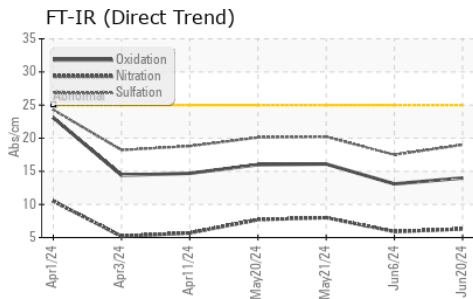
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	4	11
Potassium	ppm	ASTM D5185m	>20	14	5	▲ 40
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.4	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	6.3	5.9	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	17.5	20.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		13	3	6
Boron	ppm	ASTM D5185m	0	9	15	13
Barium	ppm	ASTM D5185m	0	1	0	0
Molybdenum	ppm	ASTM D5185m	60	60	66	69
Manganese	ppm	ASTM D5185m	0	1	0	<1
Magnesium	ppm	ASTM D5185m	1010	911	965	949
Calcium	ppm	ASTM D5185m	1070	1065	1131	1115
Phosphorus	ppm	ASTM D5185m	1150	1075	1088	1000
Zinc	ppm	ASTM D5185m	1270	1212	1290	1236
Sulfur	ppm	ASTM D5185m	2060	3095	3654	3052
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	13.1	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.6	8.0	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	13.1	13.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0081921
Lab Number : 06219306
Unique Number : 11097503
Test Package : FLEET

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee
 Multiple Sites
 Montgomery, AL
 US 36108
 Contact: BRANDON HURST
 brandonhurst@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: